EXHIBIT "A"
SUPPLEMENTAL SCOPE OF SERVICES
For
CEDAR HILLS WATER
ENGINEERING & SURVEYING SERVICES

I. PROJECT DESCRIPTION

The following is a Supplemental Scope of Services to be provided to Marion County Utilities (CLIENT) following the meetings on January 2nd, 2025 and March 12th, 2025, for the design of a refurbished Cedar Hills WTP, high pressure service area, new water main along SE 34th Street at the Cedar Hills Subdivision, and new water main along SE 29th Court between SE 34th Street and SE 36th Avenue. This Supplemental Scope of Services also includes supplemental survey at the Cedar Hills WTP site, SE 34th Street right of way (ROW), SE 29th Court ROW, and proposed locations of pressure reducing valves. The Scope of Services for this project is defined under the following categories:

Engineering Services

- Initial Design;
- Final Design.
- Technical Specifications
- Bidding Assistance;
- Construction and Start-up Stage;
- Certification of Completion and Record Drawings.

During the course of modeling the water network for the Cedar Hills development, model outputs indicated that pressures in the system were unacceptably low for the west side of the service area. The cause for this was determined to be the steep elevation change across the Cedar Hills development. This finding was then confirmed by the placement of pressure recorders at several locations on the high side of the Cedar Hills development, which recorded low pressures consistent with what was shown in the model data. Following a series of discussions and meetings with Marion County Utilities, it was determined that in order to provide acceptable service pressures to the west side of the Cedar Hills development, the existing Cedar Hills Water Treatment Plant would be kept in service to only supply water to the west side of the Cedar Hills development, which requires higher pressures from the treatment plant. The water treatment plant will be set to operate at a higher pressure in order to pump water to the top of the Cedar Hills service area via a separate high pressure service line. The high-pressure area of Cedar Hills will be interconnected with the East Side Consolidated (ESC) system via pressure control valves which will allow the Cedar Hills portion of the system to maintain service pressure in accordance with the Land Development Code (LDC) criteria.

Additionally, following initial survey of the development and review of existing City of Ocala watermains along SE 31st Street it was determined that the watermain along SE 34th Street will need to be removed and replaced and that a connection will be made along SE 35th Street between SE 35th Court and SE 36th Avenue. This was done in lieu of originally planned installation along SE 31st Street in City of Ocala right-of-way as the existing utilities and infrastructure on both sides of the road would have made installation there cost prohibitive. It was also decided that the existing watermain along SE 29th Court between SE 34th Street and SE 36th Avenue will be removed and replaced with a new 6" diameter watermain to allow for the installation of fire hydrants.

Exhibit "B" shows the updated layout of watermains in the Cedar Hills service area and planned location of pressure control valves.

II. SCOPE OF SERVICES TASKS

Part 1 – Supplemental Surveying and Mapping Services:

For this project, the following surveying and mapping services shall be provided along the proposed water main routes along SE 34th Street from the west side of the intersection of SE 31st Street to SE 35th Court, the west half of the SE 29th Court ROW from the intersection of SE 34th Street and SE 38th Avenue, and SE 31st Terrace on the east for a 50 foot section north of SE 36th Loop.

A. Horizontal and Vertical Survey Control: Establish horizontal and vertical control points within the vicinity of the project to facilitate completion of the survey and subsequent construction activities; horizontal values shall be based on the Florida State Plane Coordinate System (West Zone), North American Datum (NAD) of 1983 and vertical values shall be based on the North American Vertical Datum (NAVD) of 1988.

B. Topographic Survey: Perform a Topographic Survey of the project area which shall include the location of visible, fixed improvements and surface features along the proposed route consisting of trees (10 inches in diameter at breast height (DBH)), pavement, driveways, culverts / drainage pipes; water valves and meters, signs, sidewalks, curb, buildings, septic tanks, and other features that might affect the design of the proposed force main infrastructure and which shall include the location of spot elevations sufficient in number and location to accurately model the existing ground surface.

C. Data Processing, Survey Analysis & Mapping: following the completion of the field activities, process all survey data and perform requisite checks to insure accuracy and completeness; verify reasonable agreement of right-of-way dimensions and locations and calculate apparent geometry of any elements for which monuments were not recovered; identify and label all horizontal and vertical control points; map the results of the Topographic Survey in AutoCAD Civil 3D (2023 or newer) format by the creation of a comprehensive digital basemap of the project to be used for subsequent detailed engineering design and permitting of the project facilities; and author appropriate notes regarding the completed survey.

D. Utilities Location: Locate visible utilities, visible evidence of underground utilities and surface-level markings designating the position of underground utilities existing at the time of field survey to the extent that such lie within and/or cross into the Limits of Survey defined above.

Part 2 – Supplemental Engineering Services

A. General Services and Initial Design Phase Services:

1. Based on the project understanding and objectives and applicable federal, State and local codes and regulation, prepare a preliminary refurbishment plan for the existing Cedar Hills Water Treatment Plant and proposed new high pressure watermain to supply higher pressure to the service area. This scope of work will include assessment of existing water plant equipment for its viability of continued service, presenting recommendations for replacement components and providing recommendations for component configuration adjustments. MCU shall provide available plans, O&M manuals, and equipment records of the Cedar Hills WTP for review of existing equipment specifications and capacity.

2. Coordinate additional survey work and process information into existing design.

3. Perform additional hydraulic calculations and model runs to assess necessary pressure setting points at Cedar Hills water treatment plant.

4. Update hydraulic model with updated WTP information. There are an estimated three locations for pressure control valves in the service area, the placement and number of these valves will be hydraulically verified as compliant for

system pressures. Conduct fire flow scenarios model runs to check that hydrants in high elevation zone have a minimum 500 gpm flow rate.

5. Provide additional information and amend the Technical Memorandum to update the information regarding the supplemental modeling analysis and associated results showing the proposed refurbished Cedar Hills WTP, high-pressure zone and analyses of pipeline and pump sizing requirements. This will include running different model scenarios including maximum daily flow, maximum daily flow plus fire flow and peak hourly flow..

B. Supplemental Design Development and Plans Preparation Services

1. Final design includes preparation of additional plan sheets, notes and details including but not limited to the following: Water treatment plant site plan, water treatment plant refurbishment plan, plan sheet(s) for SE 34th Street and SE 29th Court, additional standard details, and any other details necessary to convey the intent and scope of the project for the purposes of construction. All plan sheets shall be prepared on MCU standard sheet size of 22"x34" reduceable at half-scale to 11"x17" and full size scale of 1"=40'. Profile drawings of water main will be provided on all plan and profile sheets.

C. Permitting:

1. Prepare supplemental documentation and data to be included in the FDEP permit application for the adjustment to existing water treatment plant permit and recertification of the proposed modified operating conditions. (Note: The submittal of FDEP permit documentation and processing the review of the application with FDEP is included in original scope of work).

D. Preparation of Technical Specifications and Bid Documents:

1. Perform additional quantity take-offs and provide a tabulation of construction quantity bid items for additional work outlined here-in, and where appropriate, prepare a listing of construction alternate bid items to obtain unit pricing for MCU to consider when finalizing a contract for construction of this project.

E. Bid Stage Assistance:

1. Bid stage assistance is included in the original scope of work by CONSULTANT.

F. Construction Stage Engineer of Record Services:

1. Review additional shop drawings and submittals of equipment and materials proposed to be installed by the contractor for this project associated with the water plant and items noted in this Scope of Services.

2. Provide response to an estimated (4) additional RFI questions that may arise during the course of construction from the Contractor.

3. Observe and record results of start up testing for the refurbished Cedar Hills WTP for permitting authorities.

4. Perform substantial completion walkthrough with CLIENT and assemble punch list items for contractor to correct.

5. Perform final completion walkthrough with CLIENT following completion of punch list and certify all items have been completed to CLIENT satisfaction.

G. Certification of Completion and Record Drawings

1. Prepare additional pages for final set of Record Drawings based on observations by EOR and as-built plan information furnished by the contractor.

2. Include additional watermain components in FDEP Certification of Construction Completion and request for Clearance to Place permitted PWS Components into Operation, Form 62-555.900(9) and shall assemble supporting documentation for submittal to FDEP.

3. Review O&M Manuals for water plant equipment and pressure reducing valve and include information in final O&M package submittals to County. At the request of CLIENT furnish up to Three (3) hard copy sets of Operation and Maintenance manuals for the pressure control valves and any modifications to WTP components and one (1) electronic copy of the documents in .pdf format to CLIENT for document reproduction and record keeping.

III. QUALIFICATIONS TO SCOPE OF SERVICES

1. All applicable previously stated qualifications to scope of services from original Scope of Services Proposal shall remain in effect for the purposes of this supplemental scope of services.

2. Modeling efforts will be limited to evaluating current model system with goal of providing 500 gpm fire flow only to hydrants in the high pressure system.

IV. FEE SCHEDULE SUMMARY

The following provides a breakdown of associated fees for the Scope of Services described above.

Task Description		Lump Sum Compensation
Part 1	**Supplemental Surveying and Mapping Services**	
	Topographic Design Survey	$ 26,065.00
Part 2	**Supplemental Engineering Services**	
	General Services and Initial Design Phase Services	$ 12,650.00
	Design Development and Plans Preparation Services	$ 13,030.00
	Permitting Services ……..	$ 1,635.00
	Preparation of Technical Specifications and Bid Documents ...	$ 1,290.00
	Bid Stage Assistance ……	$ 0.00
	Construction Stage Engineer of Record Services.....	$ 3,645.00
	Certifications of Completion …….……..	$ 1,670.00
	TOTAL PROJECT FEE ……..	**$ 59,985.00**

The above Total Professional Fee includes standard reimbursable and miscellaneous expenses. Additional reimbursable expenses or pass-through charges such as payment of filing fees for permits shall be reimbursable costs if paid by CONSULTANT and the expense will be passed through to the CLIENT. CONSULTANT shall notify CLIENT, in writing, of any Special Orders or necessary payment of permit fees by CONSULTANT, prior to any expenditure and obtain approval from the CLIENT for the expenditure.

V. SCHEDULE:

Work under this scope of services shall be completed in a timely manner unless otherwise directed by CLIENT. CONSULTANT shall expedite the survey, design, and document production process upon Authorization to Proceed. CONSULTANT will work to complete all necessary Tasks to meet the following project schedule goals for this water infrastructure project.

In general, the Design and permit stages of the project will be executed within the following schedule for a total estimated design/permitting period of 18 weeks.

✓ Preliminary Design	(4 weeks from NTP)
✓ Design Survey	(6 weeks from NTP)
✓ 90% Plans	(4 weeks from Design Survey)
✓ Agency Permitting	(2 weeks from 90% Plans)
✓ Final Plans & Specifications	(4 weeks from Permitting)
✓ Construction Stage	(5 months from Contractor NTP)

Construction stage services have been estimated based on construction stage not to exceed 120 days to substantial completion with an additional 30 days to final completion. It is understood that CONSULTANT has no control over the MCU or Board of County Commissioners schedule for acceptance and/or approval of project funding and/or document execution. This project is subject to regulatory review and permit approval that are subject to agency processing schedules. Should it be necessary to acquire easements and/or land purchases this schedule may be significantly impacted.

VI. INVOICING:

All Invoicing will be submitted to: procurementinvoices@marioncountyfl.org
Cc: (project manager)
11800 South US Highway 441
Belleview, FL 34420

Performance of the Engineering items outlined in this proposal shall comply with the terms and conditions of the "*Agreement Between County and Professional Services Firm* 20Q-074-CA-03", for Ardurra Group, Inc (Formerly Known as Pigeon-Ardurra, LLC) and Marion County, dated July 31, 2023.

This scope of work may be approved by issuing CONSULTANT a Purchase Order for the work as our Notice to Proceed.

Thank You for your Business;
ARDURRA GROUP, INC.

Chuck A. Pigeon, P.E.

Vice-President

Cc: File

Attachments: Exhibit "B" – Updated Proposed Watermain Map
Exhibit "C" – Project Cost Analysis/Fee Quotation Worksheets
Exhibit "D" – JCH Survey Proposal

End of EXHIBIT "A"

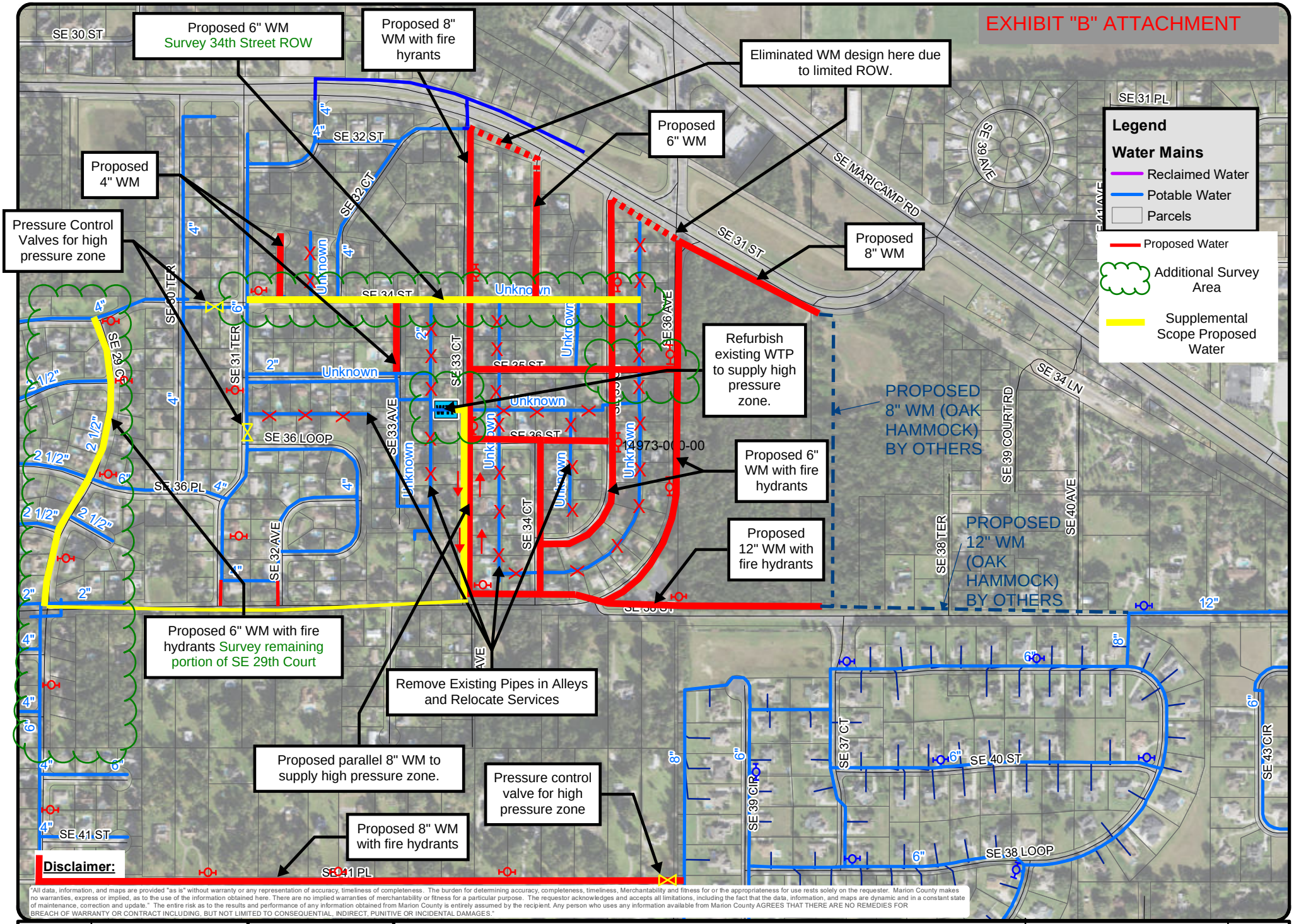


EXHIBIT "B" ATTACHMENT
Proposed 6" WM Survey 34th Street ROW
Proposed 8" WM with fire hyrants
Eliminated WM design here due to limited ROW.
Proposed 6" WM
Proposed 4" WM
Pressure Control Valves for high pressure zone
Proposed 8" WM
Refurbish existing WTP to supply high pressure zone.
PROPOSED 8" WM (OAK HAMMOCK) BY OTHERS
Proposed 6" WM with fire hydrants
Proposed 12" WM with fire hydrants
PROPOSED 12" WM (OAK HAMMOCK) BY OTHERS
Proposed 6" WM with fire hydrants Survey remaining portion of SE 29th Court
Remove Existing Pipes in Alleys and Relocate Services
Proposed parallel 8" WM to supply high pressure zone.
Pressure control valve for high pressure zone
Proposed 8" WM with fire hydrants
Legend
Water Mains
Reclaimed Water
Potable Water
Parcels
Proposed Water
Additional Survey Area
Supplemental Scope Proposed Water
SE 30 ST
SE 31 PL
SE 32 ST
SE 32 CT
SE MARICAMP RD
SE 39 AVE
SE 31 ST
SE 30 TER
SE 31 TER
SE 34 ST
SE 36 AVE
SE 33 CT
SE 36 ST
SE 34 LN
SE 39 COURT RD
SE 36 LOOP
SE 33 AVE
SE 36 PL
SE 32 AVE
SE 34 CT
SE 38 TER
SE 40 AVE
SE 37 CT
SE 40 ST
SE 39 CIR
SE 43 CIR
SE 38 LOOP
SE 41 ST
SE 41 PL
14973-000-00
Unknown
Disclaimer:
"All data, information, and maps are provided "as is" without warranty or any representation of accuracy, timeliness of completeness. The burden for determining accuracy, completeness, timeliness, Merchantability and fitness for or the appropriateness for use rests solely on the requester. Marion County makes no warranties, express or implied, as to the use of the information obtained here. There are no implied warranties of merchantability or fitness for a particular purpose. The requestor acknowledges and accepts all limitations, including the fact that the data, information, and maps are dynamic and in a constant state of maintenance, correction and update." The entire risk as to the results and performance of any information obtained from Marion County is entirely assumed by the recipient. Any person who uses any information available from Marion County AGREES THAT THERE ARE NO REMEDIES FOR BREACH OF WARRANTY OR CONTRACT INCLUDING, BUT NOT LIMITED TO CONSEQUENTIAL, INDIRECT, PUNITIVE OR INCIDENTAL DAMAGES."
Marion County Board of County Commissioners
Utilities Department
User Name: Renee.ODonnell
Date: 8/5/2021
Reference Scale: 1 " = 600 '
Approved By: n/a
Cedar Hills
PROPOSED WATER INTERCONNECTS AND REPLACEMENTS
Marion County Utilities
Water & Sewer Map
N
W
E
S
Document Path: \\mcbcc1.org\shared\Dept_Utilities_Engineering\GIS\Templates\8.5x11-Landscape.mxd

"EXHIBIT C"

PROJECT COST ANALYSIS/FEE QUOTATION WORKSHEET

PROJECT NAME: CEDAR HILLS WATER - SUPPLEMENTAL SERVICES

COMPANY NAME: ARDURRA GROUP, INC

	PROJECT ACTIVITY	Principal Engineer	Project Manager (registered)	Project Engineer (registered)	Staff Engineer	Engineer Intern	CADD Designer	CADD Technician / Inspector	Clerical	ACTIVITY AMOUNT	Manhours	% of Project
Part 2	Task Name	$200.00	$165.00	$140.00	$115.00	$95.00	$85.00	$70.00	$45.00			
A	GENERAL SERVICES AND INITIAL DESIGN PHASE SERVICES	5	28	0	0	74	0	0	0	$12,650.00	107	35.7%
B	DESIGN DEVELOPMENT AND PLANS PREPARATION SERVICES	8	20	0	0	30	60	0	4	$13,030.00	122	40.7%
C	PERMITTING SERVICES	0	3	0	0	12	0	0	0	$1,635.00	15	5.0%
D	PREPARATION OF TECHNICAL SPECIFICATIONS AND BID DOCUMENTS	1	2	0	0	8	0	0	0	$1,290.00	11	3.7%
E	BID STAGE ASSISTANCE	0	0	0	0	0	0	0	0	$0.00	0	0.0%
F	CONSTRUCTION STAGE ENGINEER OF RECORD SERVICES	0	10	0	0	21	0	0	0	$3,645.00	31	10.3%
G	CERTIFICATIONS OF COMPLETION	0	6	0	0	0	8	0	0	$1,670.00	14	4.7%
	TOTAL	**14**	**69**	**0**	**0**	**145**	**68**	**0**	**4**	**$33,920.00**	**300**	**100%**

TOTAL BASE TASK AUTHORIZATION FEE AMOUNT $33,920.00

By: CHUCK A. PIGEON, P.E.

Date: 4/18/2025

JCH
Consulting Group, Inc.
Land Development + Surveying & Mapping Planning + Environmental + G.I.S.
426 SW 15th Street, Ocala, FL 34471
PHONE: (352) 405-1482 **FAX**: (888) 272-8335 **WEBSITE**: www.JCHcg.com
Christopher J. Howson, P.S.M., C.F.M, President

April 3, 2025

Mitchell Chauncey
Ardurra
925 SE 17th Street, Suite A
Ocala, FL 34471

RE: Cedar Hills Water Extension SE 34th Street
Approximately 13,100 linear feet

Mitchell,

Thank you for considering JCH Consulting Group. After reviewing materials from our office, I have determined a fee listed below for the requested services. This will include the following tasks on the project as depicted above in Marion County, Florida:

- **Route Survey / Topographic Survey**: Fee $26,065.00
  - Approximate limits of Right of way based on found monumentation and/or plats of records.
  - Observable utilities – Utility poles, telephone boxes, valve boxes, manholes, etc. If manholes are found including inverts. Also provide topographic data for Water Treatment Plant Site.
  - Horizontal and vertical locations of sanitary sewer rims and inverts of the existing manholes.
  - Location of existing water services with meter boxes. Location of meter boxes to be found by others.
  - Topographic data will be collected at 100-foot cross sections including data collected at ROW, Top of Bank, Toe of Slope, Flow line of swales, Edge of pavement, and Center of Road, and Center of ROW.
  - Horizontal & Vertical data will meet or exceed Standards of Practice as set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 5J-17.050-052, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.
  - Location of any improvements that will interfere with the design or construction including pipelines, inverts, and including all trees 10” or larger.
  - Set Benchmarks every 1000 feet
  - State Plane Coordinates
  - Locate all surface evidence of utilities along the subject parcel and contiguous rights of way, as well as utility marks as delineated by requesting through Sunshine State One Call. Other than obtaining inverts of accessible manholes, drop inlets, etc., underground location of

utilities will be shown as delineated by others. One call reports will be provided to design team.

- Parcel Boundary lines will be based on recorded Plats
- Location of Easements based on recorded Plats
- Vertical datum will be on NAVD 1988
- Contours will be shown on a 1' for minor, and 5' for major
- Platting lot line work for the remaining portion of the Cedar Hills development
- SE 34th Street ROW from SE 30th Terrace to SE 35th Court
- Clouded area of SE 31st Terrace eastern half of ROW
- SE 29th Court ROW survey from SE 40th Street to SE 34th Street and locating of existing valve boxes that branch off of existing SE 29th Court down the adjoining streets
- ROW survey for SE 34th Street to the intersection with SE 29th Court
- SE 35th Street ROW from SE 35th Court to SE 36th Avenue
- Cedar Hills WTP Site (3506 SE 33rd Court) (Parcel: 2981-009-005)
    - Corner locations and pad elevations of Hydropneumatic tanks
    - Facility Perimeter Fence and gates
    - Corner locations, doors, and finish floor elevation of onsite building
    - Existing well head size and locations
    - Facility piping and valves
    - Location and elevation of all other site features (generator, propane tanks, valves, piping, etc)

Classification	**Rates**	**Classification**	**Rates**
Professional Surveyor/Mapper	$130	2 Person Survey Crew	$110
CAD Technician	$75	3 Person Survey Crew	$130
Clerical	$45	Vvh in pavement	$550 ea
GIS/Mapping Technician	$75	Vvh out of pavement	$400

Task #1 - Route Survey:

	Professional Surveyor / Mapper	CAD Tech	Clerical	2 Person Surveyor Crew	Total
Price / Hr,	$130.00	$75.00	$45.00	$110.00	
Coordination	6	4	3	3	
Control	8	6		35	
Topographic Collection	25	38		100	
QA/QC	16				
Total	$7,150.00	$3,600.00	$135.00	$15,180.00	$26,065.00

Deliverable:

Final survey deliverables are as follows:

- 1 compact disc (CD) containing the electronic survey file in AutoCAD Civil 3D 2023 format. The AutoCAD files shall include the Civil 3D .XML file for existing ground surface and survey baseline and the complete ASCII file of all coordinate data in a comma delimited format.

- 5 copies of the 22”x34” survey maps signed and sealed by a licensed Professional Land Surveyor of the State of Florida.

Once the proposal is authorized, we anticipate a completion date of 25-40 business days subsequent to. The requested services will be delivered in an electronic drawing file in Civil 3D 2023 format and plotted 22”x34” maps. Upon completion, an invoice will be delivered with the final map and drawing file. Payment will be due within 30 days of the invoice date.

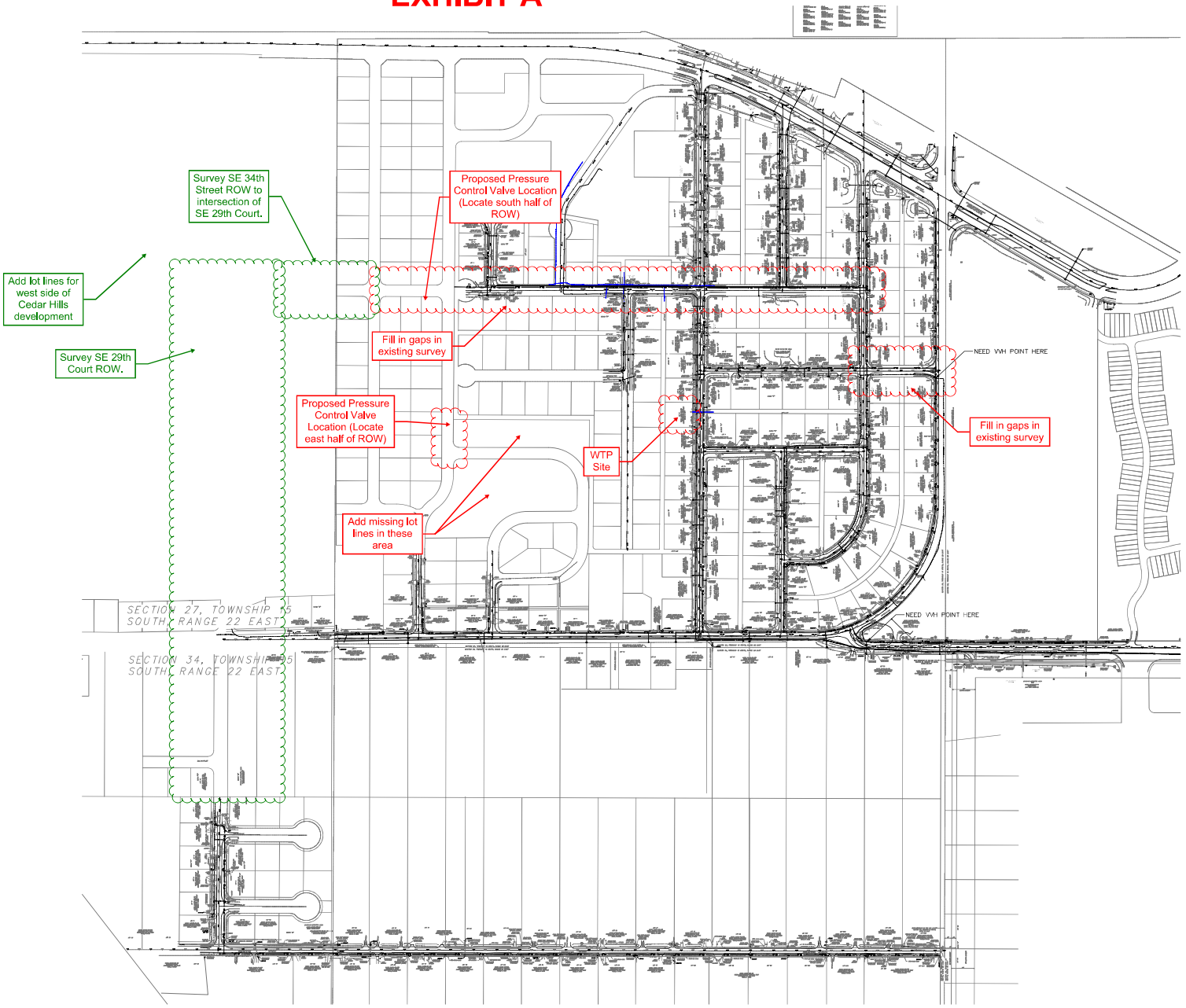
Terms of this proposal are valid for 30 days from date of proposal. If you have any questions regarding this proposal, or for any further information, please do not hesitate to call.

Sincerely,

Chris Howson

Chris Howson, P.S.M., C.F.M., (FL., MS)
President
JCH Consulting Group, Inc.

EXHIBIT A


Survey SE 34th Street ROW to intersection of SE 29th Court.
Proposed Pressure Control Valve Location (Locate south half of ROW)
Add lot lines for west side of Cedar Hills development
Survey SE 29th Court ROW.
Fill in gaps in existing survey
NEED VVH POINT HERE
Proposed Pressure Control Valve Location (Locate east half of ROW)
WTP Site
Fill in gaps in existing survey
Add missing lot lines in these area
NEED VVH POINT HERE
SECTION 27, TOWNSHIP 5 SOUTH, RANGE 22 EAST
SECTION 34, TOWNSHIP 5 SOUTH, RANGE 22 EAST